Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund – Alaska Plan	)	WC Docket No. 16-271

PETITION FOR LIMITED WAIVER OF ALASKA TELECOM ASSOCIATION TO PERMIT COMMONLY ACCEPTED INDUSTRY LEVELS OF SPATIAL ACCURACY FOR MIDDLE MILE FIBER ROUTE MAPPING

Christine O'Connor
Executive Director
ALASKA TELECOM ASSOCIATION
201 East 56th Avenue, Suite 114
Anchorage, Alaska 99518
(907) 563-4000

February 6, 2019

Table of Contents

I. INTRODUCTION AND SUMMARY

Pursuant to 47 C.F.R. § 1.3, Alaska Telecom Association ("ATA") respectfully seeks a limited waiver of one aspect of the Alaska Plan network mapping requirements. Specifically, ATA seeks a waiver of the requirement that the intermediate (between endpoints or "nodes") location of certain fiber be reported to within 7.6 meters of accuracy. As explained below, the ATA members participating in the Alaska Plan are prepared to report the locations of their fiber links to commonly accepted industry levels of spatial accuracy, but in many cases the available information cannot satisfy the mandated level of accuracy and precision for all the fiber that must be reported.[1] The relaxation of accuracy requirements for some fiber link reporting will not compromise the Commission's ability to utilize fiber maps to oversee the Alaska Plan.

This is a limited waiver request. First, ATA *is not seeking a waiver of the requirement to report the location of fiber*. To the contrary, the Alaska Plan participants will report the location of all fiber meeting the definition of a "link" in the network mapping instructions, which includes long-haul fiber, undersea cables, wireless backhaul, local fiber, and fiber serving as last-mile connections to community anchor institutions. Second, ATA is not seeking a waiver of the spatial accuracy requirement for submarine cable fiber. Finally, ATA is not seeking a waiver to report the locations of nodes—such as reportable fiber endpoints—to within 7.6 meters. This means that the mapping of existing points of access to fiber will continue meet accuracy and precision requirements as stated in the FCC requirements.

Granting the waiver is in the public interest. The Alaska Plan participants' existing records serve their business needs. In order to meet Alaska Plan requirements when locating

[1] *Connect America Fund – Alaska Plan*, Order on Reconsideration, 33 FCC Rcd. 2068 (Wireline Comp. and Wireless Telecomm'ns Burs. 2018) ("*Middle Mile Mapping Order*").

buried fiber more specifically than currently available in existing records, the participants would need to walk the entire span of the buried fiber, stopping every 7.6 meters (25 feet) to locate the fiber underground and detect and record its location. (A segment along the Dalton Highway from north of Fairbanks to Deadhorse is 203 miles long, which would require over 40,000 measurements at 25-foot intervals.) Similarly, for aerial fiber, existing records do not necessarily reflect spatial accuracy to 7.6 meters, and satellite imagery is not sufficiently accurate to avoid the need for on-site measurement in many cases.

No party will be prejudiced by allowing the participants to file network information based on their existing records. The Bureaus will have complete network map information for assessing the status of microwave and fiber networks throughout Alaska as defined in the Alaska Plan requirements. In addition, if the Bureaus request more granular information regarding a specific fiber location, the Alaska Plan participants are willing to travel to that location to gather the information, with reasonable notice and accommodations for the challenges of Alaska travel. In sum, granting the waiver will not prejudice the ability of the Commission to use the network map to its fullest potential. The available data will satisfy the spirit of the network mapping initiative and reflects the realities of current records and the cost and burden of gathering all fiber locations to within 7.6 meters.

II. BACKGROUND

In August 2016, the Commission adopted the *Alaska Plan Order* based on a consensus proposal from ATA "designed to maintain, extend, and upgrade broadband service across all areas of Alaska served by rate-of-return carriers and their wireless affiliates."[2] The carriers that

[2] *Connect America Fund et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd. 10,139, 10,140 ¶ 1 (2016) ("*Alaska Plan Order*") (footnote omitted).

opted to participate in the Alaska Plan each committed to maintain and upgrade service within their service areas in exchange for receiving a fixed amount of high-cost support over ten years. Individual providers' performance plans, as approved by the Wireline or Wireless Bureau as appropriate, reflect whether the relevant community is connected to the larger network by satellite, microwave, or fiber facilities.

The Commission also acted to ensure that, as new middle mile facilities become available, Alaska Plan participants' performance plans are appropriately adjusted to account for the new capabilities.[3] To support the evaluation of these adjustments, the Commission required Alaska Plan participants to submit maps of their fiber and microwave middle mile and backhaul facilities and to update them annually "if they have deployed middle mile facilities in the prior calendar year that are or will be used to support their service in eligible areas."[4] The Commission did not include detailed filing instructions in the *Alaska Plan Order* but required participants to submit their maps "in a format specified by the Bureaus."[5]

---

[3] *See id.* at 10,148 ¶ 25 (requiring rate-of-return participants to meet broadband public interest obligations if backhaul facilities improve sufficiently); 10,158 ¶ 61-62 (directing the Wireline Competition Bureau to take improvements in middle mile infrastructure into account in evaluating rate-of-return carrier performance commitments at set intervals); 10,172 ¶ 102 (requiring mobile participants to upgrade certain performance commitments in response to improvements in middle mile).

[4] *See id.* at 10,158 ¶ 60, 10,172-73 ¶ 102; *see also* 47 C.F.R. § 54.316(a)(6) ("Recipients subject to the requirements of §54.308(c) or §54.317(e) shall submit fiber network maps or microwave network maps covering eligible areas. At the end of any calendar year for which middle-mile facilities were deployed, these recipients shall also submit updated maps showing middle-mile facilities that are or will be used to support their services in eligible areas.").

[5] *Alaska Plan Order* at 10,158 ¶ 60, 10,172-73 ¶ 102. "The Bureaus' assessment would include a review of any revised performance commitments and service obligations triggered by the carriers' certification on FCC Form 481 that new 'middle-mile' facilities are 'commercially available.'" *Middle Mile Mapping Order* at 2070 ¶ 3 (citing *Alaska Plan Order* at 10,156, 10,172-73, ¶¶ 52, 102).

In September 2017, the Bureaus released the initial instructions for the network maps to be filed by March 1, 2018.[6] ATA sought additional flexibility due to the need to gather location information, the overall costs, the limited time available until the first filing deadline, and the challenges of travel and outdoor work during the shortened days and harsh weather of the Alaska winter.[7]

On February 28, 2018, the Bureaus released the current instructions for Alaska Plan participants to follow in submitting their maps.[8] As relevant here, the instructions require that all relevant fiber "links" and all relevant "nodes" must be reported consistent with the "National Standard for Spatial Data Accuracy: accurate to within 7.6m CE95 (FGDC-STD-007, 3-1998)."[9] This standard requires geolocations to be spatially accurate to within 7.6 meters (about 25 feet), 95% of the time.

ATA members made their first required network map filing on August 1, 2018.[10] For the first filing, Alaska Plan participants were allowed to file estimates of link or node locations to the

---

6 *See Wireline Competition Bureau and Wireless Telecommunications Bureau Release Instructions for Filing Terrestrial Middle-Mile Network Maps*, Public Notice, 32 FCC Rcd. 6863 (Wireline Comp. & Wireless Telecomm'ns Burs. 2017).

7 Petition for Reconsideration of Alaska Telephone Association, WC Docket No. 16-271 (Oct. 10, 2017). ATA also commented pursuant to the Paperwork Reduction Act. Comments of Alaska Telephone Association on Proposed Information Collection Requirements, WC Docket No. 16-271, OMB 3060-1228 (Nov. 27, 2017); Letter from Christine O'Connor, Alaska Telephone Association, to Nicholas A. Fraser, The Office of Management and Budget, OMB Control No. 3060-1228, FCC WC Docket No. 16-271 (Jan. 11, 2018).

8 *Middle Mile Mapping Order*.

9 *Middle Mile Mapping Order* at 2083 (fiber links), 2085 (nodes).

10 The due date set by the *Middle Mile Mapping Order* was July 1, 2018, but the deadline was extended by one month to allow sufficient time to file after USAC completed necessary modifications to the HUBB. *See Extension of Deadline for Alaska Plan Carriers Filing Middle-Mile Fiber and Microwave Network Maps Pursuant to Section 54.316(a)(6)*, Public Notice, 33 FCC Rcd. 6242 (Wireline Comp. & Wireless Telecomm'ns Burs. 2018).

extent that they did not already have information meeting the 7.6-meter accuracy requirement.[11] This relief permitted Alaska Plan participants to file locations to within 50 meters rather than 7.6 and still certify in their filings that the information is accurate and complete.[12] This relief applied only to the 2018 submission. For 2019, the instructions require that all links and nodes comply with the 7.6-meter standard, and that an officer of the company certify at the time of filing that the filing is accurate and complete.[13]

In the time since the first filing, ATA members have worked more than 3,700 collective hours and spent or committed to spend more than $600,000[14] to gather the additional information needed for the upcoming filing.[15] Where their own records do not contain information meeting the 7.6-meter standard, they have hired professional land surveyors and geoinformation specialists, contracted for highly accurate aerial photography services, and purchased GPS equipment for staff use on site.

For nodes, microwave links, and undersea fiber links, this process has been burdensome, but the Alaska Plan participants have gathered the necessary information and believe at this time that they are prepared to file this information consistent with the 7.6-meter standard. (Mapping

---

11 *Middle Mile Mapping Order* at 2075 ¶ 17.

12 *Middle Mile Mapping Order* at 2081, 2084, 2086

13 *Id.*

14 These figures are likely understated as not all providers' costs are included.

15 The Commission represented to the Office of Management and Budget that the cost to the providers over the entire ten-year reporting period would be $108,000. *See* Connect America Fund – High Cost Portal Filing, Supporting Statement, OMB Control No. 3060-1228, at 22-23 (Aug. 2017). Just on this second year's filing, the providers have spent over $750,000 in staff time, equipment, and outside vendors. The actual number for this second year's filing is likely higher because the providers have not yet completed their work, not all providers' costs are included, and the average hourly cost of staff in Alaska is higher than the $40 the Commission used in its estimate.

microwave links is similar to mapping nodes because the microwave signal travels a straight path between two radio endpoints on geolocated towers.)

Not all fiber, however, has been mapped to within 7.6 meters and efforts to obtain the data for all buried and aerial fiber have not been successful. In the course of preparing for the upcoming filing, some Alaska Plan participants have found that their existing records do not reflect the location of buried fiber to 7.6 meters along the entire span of the link. Furthermore, it has been determined that obtaining the location of this buried fiber to the required accuracy and precision is a practical impossibility. The fiber may, for example, be on one side of a highway or rail bed, which is more than 7.6 meters from the other side of the highway or rail bed or from the edge of the right-of-way on the same side. In the ordinary course, this level of accuracy is more than sufficient to meet providers' business needs. Specifically, the information is sufficient to allow the providers to know their own networks, and it is sufficient to allow a technician to go the area, send a signal through the fiber, and detect the signal from above-ground to identify the specific location of the fiber. (This process is called a "locate" in construction.) All underground facilities owners *must* be able to locate and physically mark the position of buried facilities to comply with Alaska's "811" or "Call Before You Dig" requirements.[16] Providers use the same records and the same location techniques to address any other construction needs. With no business reason to record the location more accurately than is needed to comply with the law and internal needs, the Alaska Plan participants do not maintain records of the location of all buried fiber to within 7.6 meters of accuracy.

[16] *See* AS § 42.30.410(b) ("When an underground facility operator receives a request to locate, it shall notify the excavator of the location of the underground facilities that the operator is able to field mark with reasonable accuracy and field mark those facilities.").

Similarly, with regard to aerial fiber, existing records are sufficient to allow providers to go to a site, visually identify the pole number and the fiber, and address whatever network needs there are. Generally, the Alaska Plan participants do not own the poles to which the aerial fiber is attached and have had no reason to record the location of the poles with 7.6-meter accuracy. The participants have contacted the pole owners, who similarly do not have the information or a process to collect the information. With reportable aerial fiber attached to over 35,000 poles throughout Alaska, it would be a massive endeavor to gather the information manually without having that information contribute any identified, corresponding benefit.

Nor does fiber lend itself easily to other location solutions. Unlike some above-ground locations, no commercially available desktop applications or aerial photography can locate an underground facility. For aerial fiber, satellite imagery can reflect the location of poles, but not consistently or reliably. Poles can be obscured by cloud cover, leaves, and shadows from nearby trees or structures. Nor is the imagery guaranteed to a 95% confidence level (as required by the 7.6m CE95 standard). The only way to produce a 7.6 meter accurate "link" dataset for all fiber paths for which the required information does not yet exist would be to physically walk the length of buried fiber and trace the signal above ground and record the accurate location of sufficient poles (for aerial fiber) to validate and supplement any other sources of aerial fiber location information. With over 3,300 miles of buried fiber and over 800 miles of aerial fiber[17] that the Participants must report, this process would take an extraordinary amount of time and expense and would not significantly enhance the reported Alaska Plan data or the Participants' business data set.

[17] These figures are likely understated as not all providers' data are included.

III. DISCUSSION

A. Waiver Standard

Under 47 C.F.R. § 1.3, "[a]ny provision of the rules may be waived by the Commission . . . on petition if good cause therefor is shown." In *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990), the D.C. Circuit explained that good cause exists where "special circumstances warrant a deviation from the general rule and such deviation will serve the public interest." *Id.* at 1166. In other words, the Commission "has authority . . . to waive requirements not mandated by statute where strict compliance would not be in the public interest[.]"[18] In addition, "the Commission may take into account considerations of hardship, equity, or more effective implementation of overall policy on an individual basis."[19]

B. Granting a Limited Waiver Will Not Frustrate the Purposes of the Network Mapping Requirements

The network mapping will result in a highly detailed and accurate depiction of fiber and microwave networks in remote Alaska. Waiving the spatial accuracy standard for fiber links will not reduce the usefulness or effectiveness of the submitted map.

First, the waiver is limited. The Alaska Plan participants will report to the required spatial accuracy the locations of all relevant nodes, microwave links, and subsea cables.

Second, for all fiber subject to the waiver, the participants will report to within 7.6 meters the location of all nodes that touch the fiber. These include central offices, cable headends, mobile switching centers, earth stations, points of presence, landing stations, peering points,

---

[18] *Nat'l Ass'n of Broad. v. FCC*, 569 F.3d 416, 426 (D.C. Cir. 2009).

[19] *Connect America Fund et al.*, Order, DA 18-999, WC Docket Nos. 10-90 & 14-93, ¶ 21 n.43 (Wireline Comp. Bur. rel. Sept. 28, 2018) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1159 (D.C. Cir. 1969); *Northeast Cellular*, 897 F.2d at 1166).

Internet gateways, outdoor cell sites, community anchor institutions, and the terminating locations of all fiber links if not otherwise reported.[20] Thus, for every reported fiber link, the Commission will have the location of both endpoints to within 7.6 meters. The waiver, in effect, would only apply to the span of the fiber—its "midsection"—not its endpoints.

This is a significant point. For many potential users of the fiber, the Commission will have the same information it would have without a waiver or information sufficiently granular to understand the proximity of fiber. Many customers—retail and wholesale—requesting a high-speed connection would gain access to that connection from an existing reported node. For example, a wholesale customer that seeks to purchase fiber-based Internet backhaul would likely interconnect at the central office to existing fiber. The central office fiber endpoint will be mapped to within 7.6 meters of accuracy. Similarly, a mobile service provider seeking fiber backhaul would likely collocate on an existing fiber-fed tower, which would be mapped to within 7.6 meters. For customers like these who seek to use existing fiber at a node that already touches fiber, the Commission will have exactly the same information it would have used absent a waiver—the location of the node to within 7.6 meters, whether the fiber is owned or leased, and whether it interconnects with a transit provider.[21]

If the potential customer or site would require newly deployed fiber, the network map will include information to allow the Commission to analyze the circumstances of nearby fiber. As explained above, the Alaska Plan participants will map the location of fiber to the best level of accuracy their current records permit. In addition, if the site in question is near a mapped fiber node, then the accuracy will not be substantially less than the 7.6-meter standard, because the

---

[20] *Middle Mile Mapping Order* at 2085.

[21] *Id.* at 2086-87.

location of the fiber will be near the node that meets the 7.6-meter standard. In more densely populated areas like the larger villages, the participants expect that the locations of fiber will generally not be far off the 7.6-meter standard, given that they know precisely where all the endpoints are, and fiber tends to run down established streets and rights-of-way.

In rural areas, mapping fiber links is most difficult. In some of these areas, there will be a mapped wireless tower along a highway that "anchors" the location of the fiber that serves it. Between such anchoring nodes and in areas without such nodes, the accuracy will vary, but not to a point where the map does not reflect fiber in the vicinity. The main reason to pinpoint the location of fiber in a location that otherwise has no nodes is to have a general idea of whether fiber runs nearby in the event that a new retail or wholesale customer would seek to have a new splice point added in order to support a new circuit. This customer could be a government facility, a new wireless tower along a highway, or a new network segment built to create redundancy. In these situations, the location of fiber per existing records should provide ample indication of whether fiber is "nearby." To the extent that the Commission requires additional information about a specific location, with reasonable notice and subject to Alaska's weather constraints, the Alaska Plan participants are willing to travel to the location with the necessary equipment to locate the fiber and map its location to within 7.6 meters. But a 7.6-meter location is not necessary along the entire route and would cost far more to gather the data than any possible beneficial use of the data.

In sum, granting a waiver of the spatial accuracy requirement for fiber will not hamper or impair the Commission in its "ongoing assessment of the performance commitments of the recipients."[22] In populated areas, the map will reflect the locations of anchoring nodes to within

[22] *Alaska Plan Order* at 10,173 ¶ 102.

7.6 meters of accuracy, and the locations of any fiber can be fairly estimated from those. In unpopulated or lightly populated areas, there are far fewer potential new customers or uses, and the available information should inform the Bureaus of the state of the network and available infrastructure. To the extent the Bureaus require more as they investigate a specific location, the Participants will gather the necessary information upon reasonable request.

C. A Waiver Is in the Public Interest

As explained above, granting a waiver will have little if any impact on the ability of the Commission to use the network map for policy making purposes going forward.

As noted above, however, strict enforcement of the spatial accuracy standard would impose tremendous additional costs and technical challenges that may not be resolvable (if achievable at all) with no commensurate benefit. Gathering all link data to 7.6 meters of accuracy is entirely unnecessary. ATA believes that the Commission can monitor the Alaska Plan progress with data that are reasonably precise consistent with the providers' records. In addition, if the Commission finds that it needs more granular information for a specific location, the Alaska Plan participants are willing to travel to the precise location with the equipment needed to gather the data. They would report this information to the Bureaus and include it in the next March 1 update. The participants would need reasonable notice of the Commission's need and accommodations for weather-related travel hazards.

In sum, granting a waiver is in the public interest because it will not frustrate the purposes of the mapping requirements, but strict compliance with the accuracy requirements would impose great costs and technical challenges with no apparent benefit.

IV. CONCLUSION

ATA seeks a limited waiver of the accuracy standard for one subset of the network mapping requirements—land-based fiber. ATA believes that a waiver of the accuracy standard for this limited data set will not affect the ability of the Commission to ensure that the Alaska Plan is fully successful in upgrading service to as many Alaskans as possible.

Respectfully submitted,

/s/

Christine O'Connor
Executive Director
ALASKA TELECOM ASSOCIATION
201 East 56th Avenue, Suite 114
Anchorage, Alaska 99518
(907) 563-4000

February 6, 2019

ATTACHMENTS

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund – Alaska Plan	)	WC Docket No. 16-271

DECLARATION OF ARCTIC SLOPE TELEPHONE ASSOCIATION COOPERATIVE, INC.

1. My name is Lucas Middle. I serve as Director of Network Engineering at Arctic Slope Telephone Cooperative, Inc. (ASTAC). In this role, I am responsible for planning and design of the overall ASTAC network giving overall guidance and technical direction to the engineering workgroup. I have been with ASTAC since 12/2010 starting as a network engineer, working up to the engineering manager in 2012, and have been in my current role since 1/1/2018.

2. I have been involved in our company's efforts to comply with the fiber and microwave network mapping requirements imposed by the Wireline Competition and Wireless Telecommunications Bureaus on the Alaska Plan participants. The engineering department at ASTAC is responsible for OSP fiber design and installation. Providing general oversight I typically know the details required to direct staff to find the appropriate information.

3. Our company has analyzed its network and determined that it has approximately 5.38 miles of buried fiber that must be reported, 6.84 miles of aerial fiber that must be reported, and 235 poles associated with the reportable aerial fiber.

4. Our company does not generally maintain the locations of nodes or fiber or microwave links to within 7.6 meters of accuracy, we do however maintain a relative map of all installed buried and aerial fiber. In most cases, to comply with the network mapping

requirements, we have been required to gather new data to comply with the 7.6 meter accuracy standard.

5. In preparation for the filing due on March 1, 2019, our staffhave to date spent over 30 hours on planning, assessing and analyzing available information, inputting data into internal databases, and converting data into the required formats. This figure is only the current initial hours and does not include hours spent preparing for the filing made in August 2018 which includes a larger overall effort in updating our geocode database.

6. We have also spent to date approximately $300 on outside vendors specifically for the filing due March 1, 2019. This only includes initial external support to create shapefiles since we do not own the required software or have the expertise in-house. The final costs have yet to be determined and will be higher than previous years due to the increased data sets we would provide to present a shapefile to the 7.6 meter accuracy.

I declare the foregoing to be true and correct to the best of my knowledge, under penalty of perjury.

Lucas Middle
Director of Network Engineering

6/6/19
Date

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund Alaska Plan	)	WC Docket No. 16-271

DECLARATION OF William Douglas Devore

1. My name is William Douglas Devore. I serve as President at Bush-Tell, Inc. In this role I am responsible for complete operation of the company. I have been in this role for 4 years. I've been involved with Bush-Tell, Inc. (BTI) since 1984 as their consulting engineer, being heavily involved with their OSP design and preparing documents for obtaining financial loans through the Rural Utility Services. I've been an active Board of Director member of BTI since 2008 and became V.P. /Asst. General Manager in 2009. I became President of the Board in 2015.

2. I have been involved in our company's efforts to comply with the fiber and microwave network mapping requirements imposed by the Wireline Competition and Wireless Telecommunications Bureaus on the Alaska Plan participants. BTI is working to compile our existing fiber data, which consists of maps (both paper and electronic) into a format to meet the directive from FCC. BTI is currently in the process of building FTTH in 2 of its 10 exchanges, Aniak and Kalskag AK. BTI has hired a consultant to plan, design, engineer and over see these builds.

3. BTI currently has in service 3.25 miles of buried fiber in Aniak that must be reported.

4. Our company has analyzed its network and determined that when the construction of the FTTH networks are complete for the first 2 exchanges is complete, BTI will have a total of approximately 4 miles of buried fiber that must be reported (.75 new), 35 miles of new aerial fiber that must be reported, and 525 poles associated with the reportable aerial fiber.

5. With exceptions, our company does not generally maintain the locations of fiber within 7.6 meters of accuracy. In most cases, to comply with the network mapping requirements, we will be required to gather new data to comply with the 7.6 meter accuracy standard.

6. In preparation for the filing due on March 1, 2019, our staff has to date spent 2 hours on planning, assessing and analyzing available information, this figure does not include hours spent preparing for the filing made in August 2018.

7. We have also spent to date approximately $230.00 on outside vendors specifically for the filing due March 1, 2019. This includes Mid-State Consultants reviewing the available data and assisting with this "Data for Fiber Waiver".

I declare the foregoing to be true and correct to the best of my knowledge, under penalty of perjury.

William Douglas Devore
President

02-04-2019
Date

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund – Alaska Plan	)	WC Docket No. 16-271

DECLARATION OF JAMES DUNN

1. My name is James Dunn. I serve as CEO at Copper Valley Telecom and I have been managing the operations of our telephone cooperative in the Copper River Basin of Alaska since February of 2018.

2. I oversee our company's efforts to comply with the fiber and microwave network mapping requirements imposed by the Wireline Competition and Wireless Telecommunications Bureaus on the Alaska Plan participants.

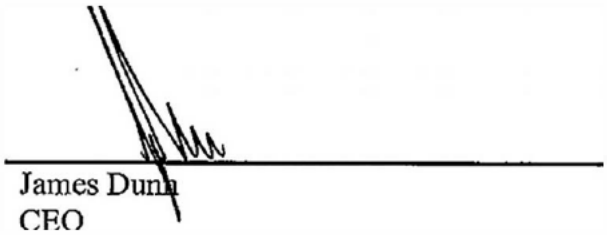
3. Our company has analyzed its network and determined that it has approximately 700 miles of buried fiber that must be reported, 2 miles of aerial fiber that must be reported, and 10 poles associated with the reportable aerial fiber.

4. With exceptions, our company does not generally maintain the locations of nodes or fiber or microwave links to within 7.6 meters of accuracy. In most cases, to comply with the network mapping requirements, we have been required to gather new data to comply with the 7.6 meter accuracy standard.

5. In preparation for the filing due on March 1, 2019, our staff have to date spent over 225 hours on planning, assessing and analyzing available information, travel, gathering additional information on site, inputting data into internal databases, and converting data into the

required formats. This figure does not include hours spent preparing for the filing made in August 2018.

I declare the foregoing to be true and correct to the best of my knowledge, under penalty of perjury.



James Dunn
CEO

February 4, 2019
Date

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund – Alaska Plan	)	WC Docket No. 16-271

DECLARATION OF MARK AYERS

1. My name is Mark Ayers. I serve as Vice President, Architecture and Planning at GCI Communication Corp. ("GCI"). In this role, I am responsible for network architecture, planning, and capacity forecasting across GCI's core network, including wireline as well as wireless. I have been in this role for approximately 2 years. I am GCI's named Engineer of Record with the State of Alaska professional engineer licensing board (AELS) and have had this responsibility since 2014. I hold a Master of Science in Electrical Engineering from the University of Alaska Fairbanks and a Bachelor of Science degree in Mathematics from the University of Alaska Anchorage. I am a licensed professional engineering in the Electrical Engineering discipline (license number AELE11516).

2. I have been involved in GCI's efforts (including those of affiliate United Utilities, Inc.) to comply with the fiber and microwave network mapping requirements imposed by the Wireline Competition and Wireless Telecommunications Bureaus on the Alaska Plan participants. I have personally reviewed middle mile submission processes and methodologies, participated in meetings guiding how GCI collects and delivers the requested data and have multiple senior staff members participating in the development of GCI's response.

3. GCI has analyzed its network and determined that it has approximately 2,000 miles of buried fiber that must be reported\, 526 miles of aerial fiber that must be reported, and 35,000 poles associated with the reportable aerial fiber.

4. With exceptions, GCI does not reliably maintain the locations of nodes or fiber or microwave links to within 7.6 meters of accuracy. In most cases, to comply with the network "node" mapping requirements, GCI has been required to gather new data to comply with the 7.6-meter accuracy standard.

5. In preparation for the filing due on March 1, 2019, GCI staff have to date spent over 2,000 hours on planning, assessing and analyzing available information, traveling to various rural locations to gather additional information on site, inputting data into GCI internal databases, and converting data into the required formats. This figure does not include hours spent preparing for the filing made in August 2018.

6. GCI has also spent to date approximately $265,000 on outside vendors and equipment specifically for the filing due March 1, 2019. This includes contract labor and professional surveyors.

I declare the foregoing to be true and correct to the best of my knowledge, under penalty of perjury.

Mark Ayers
Vice President, GCI Communication Corp.

02/06/18
Date

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund Alaska Plan	)	WC Docket No. 16-271

DECLARATION OF MATANUSKA TELEPHONE ASSOCIATION, INC

1. My name is Eric Anderson. I serve as VP of Engineering and Operations at Matanuska Telephone Association, Inc. In this role, I am responsible for leading the planning, design, construction and operations of the networks. I have been in this role for twelve years.

2. I have been involved in our company's efforts to comply with the fiber and microwave network mapping requirements imposed by the Wireline Competition and Wireless Telecommunications Bureaus on the Alaska Plan participants. I lead managers who are responsible for planning and mapping and I manage the budgets associated with the mapping efforts.

3. Our company has analyzed its network and determined that it has approximately 600 miles of buried fiber that must be reported and 270 miles of aerial fiber that must be reported.

4. Our company does not generally maintain the locations of nodes, fiber or microwave links to within 7.6 meters of accuracy. To comply with the network mapping requirements, we have been required to gather new data to comply with the 7.6 meter accuracy standard.

5. In preparation for the filing due on March 1, 2019, our staff has to date spent over 1,500 hours on planning, assessing and analyzing available information, travel, gathering

additional information on site, inputting data into internal databases, and converting data into the required formats. This figure does not include hours spent preparing for the filing made in August 2018.

6. We have also spent to date approximately $280,000 on outside vendor with an additional $70,000 committed, specifically for the filing due March 1, 2019. This will be a total of $350,000 spent on outside vendors barring any unforeseen expenses vendors may still come back with. This includes hiring our mapping vendor to complete a portion of the work and another mapping consulting group which is currently working on completing the work.

I declare the foregoing to be true and correct to the best of my knowledge, under penalty of perjury.

Eric Anderson
VP Engineering and Operations

2/4/2019
Date